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BULLETIN
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On Three Hybrid Oaks near Washington, D. C.

By GEORGE VASEY.

(Plates XXVIII.—XXX.)

Hybrid No. 1, *or "Saul's Hybrid."* (Plate XXVIII.)—This tree is growing on the premises of Mr. John Saul, a nurseryman and florist, about two miles north of the city. It is growing in a thicket mostly composed of white and red oaks and chestnuts. The tree towers up to the height of some fifty feet. The general appearance of the trunk and branches suggested to me a young *Quercus rubra*, but a glance at the leaves and fruit referred it at once to the white oak group. But the bark does not have the usual whitish color and scaly character of the white oak. The bark of *Quercus stellata* (post-oak) is closer and less scaly than that of the white. The bark of the true *Quercus Prinus* is still closer, harder and darker colored, and on the branches is quite smooth. The bark of this hybrid appears to combine the qualities of *Quercus alba* and *Q. Prinus.* The leaves are mostly five or six inches long, with an average breadth of about two inches, mostly acute and narrowed at the base, and with a pretty uniform width of outline. There are six or seven lobes on each side, pointing with a strong and uniform angle toward the apex. The sinuses are mainly about an inch deep, reaching within half or three-fourths of an inch of the midrib. The lobes are remarkably uniform in size, breadth and direction. The upper surface is of a dark, glossy green, the under surface of a bluish-white or glaucous color, and smooth. The petiole is an inch to one and a half inches long, flexible, and of a yellowish color, as in *Q. rubra.* In texture, it is a little thicker than in *Q. alba.* The acorns are like those of *Q. Prinus*, averaging nearly as large, and with the same tuberculated cup. There is seldom more than one matured on a twig, and they have a pretty stout pedicel of half an inch in length. Growing under the tree there are two young trees or bushes about eight feet high, which apparently are seedlings from it. In this, as in most other oaks, the leaves on the lower branches and the leaves of the sprouts differ considerably from those of the upper and fertile branches, being broader and more irregular in lobation. It is difficult to fix the parentage of this tree, but the acorns point unmistakably to *Quercus Prinus*, and the leaves we may suppose to combine the characters of *Q. Prinus* and *Q. alba.* Dr. Engelmann thinks it may be a new variety of *Q. Prinus.*

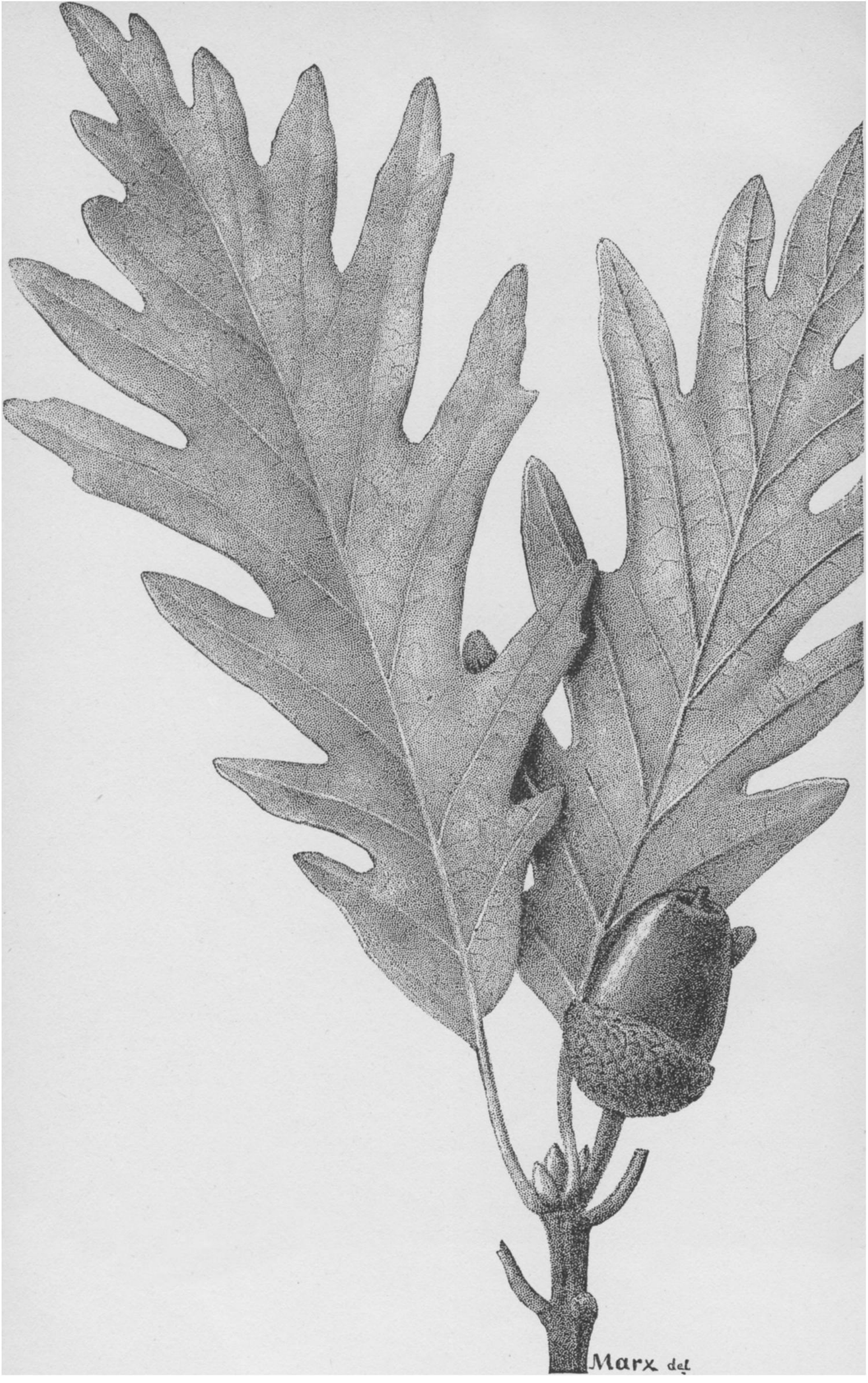
Hybrid No. 2. (Plate XXIX.)—This tree is growing about six miles north of Washington, near Silver Spring Station, and close by the roadside. In fact, there is a clump of three trees, evidently sprouts from an original tree, which was cut down probably twenty-five years ago. The three trunks are of about equal size—about twenty feet high—and branch within six feet of the ground. The bark is closer and darker colored than that of the white oak. The leaves in outline, but not in lobation, are much like those of the Saul's hybrid, being six or seven inches long, and narrow, with about four pairs of lobes; most of the sinuses reaching within half an inch or less of the midrib. The base of the leaf is generally obtuse and rounded, gradually widening for an inch or more to the first pair of lobes, which are scarcely more than coarse teeth. The remaining lobes are rather irregular, there being usually two or three pairs of large ones of about an inch in length each, then a pair of small short ones or teeth, ending in a narrow acutish point of about half an inch. The middle pair of lobes is the longest and broadest, making the greatest breadth of the leaf, which is about two inches. The under surface of the leaf is of a light gray, with a minute and sparse pubescence. The lobes generally point strongly forward, but frequently one or two diverge nearly at right angles. The upper surface is smooth, dark green, and the texture is considerably thicker and firmer than in *Q. alba.* The petiole is about an inch long, narrow, but less flexible than in No. 1, and destitute of the yellowish color. The acorns mature mostly in twos, and the common peduncle is about half an inch long, and thick. The acorns are about the size and form of those of *Q. alba*, the cup covering about one-third, with a thin edge, and with close smoothish scales. This tree seems to show a mixture of *Q. alba* and *Q. stellata*, with a preponderance of *Q. alba.*

Hybrid No. 3. (Plate xxx.)—This tree grows close by the roadside about two miles north of the city, near what is called Piney Branch. It is, perhaps, twenty-five feet in height, and the trunk a foot in diameter. The bark and general habit of the tree is much like that of *Q. stellata*, the bark being close and dark in color. The leaves, in length, are five or six inches, slightly shorter than in hybrids numbers one and two, and broader. There are about five pairs of lobes, of which the third and fourth are the largest and broadest. They are coarser and wider, and have greater divergence than in the others, and the central part of the leaf is broader. The lower surface is grayish, rougher and more pubescent than in number two. The upper surface is of a dark shining green. The leaf is firmer in texture than in either of the others; the petiole is stiffer; and in outline, rigidity and roughness it shows an evident approach toward *Q. stellata.* The same relationship is manifested in the acorns, which are broader and more depressed than those of *Q. alba*, evidently approaching those of *Q. stellata*, but much larger. In other respects it is *Q. alba.*

New or Little-Known Ferns of the United States. No. 13.

By D. C. Eaton.

43. *Polypodium thysanolepis*, Al. Braun.—Rootstock creeping, densely scaly ; stalks two to six inches long ; fronds as long as the stalks, ovate in outline, sub-coriaceous, slightly scaly above, clothed



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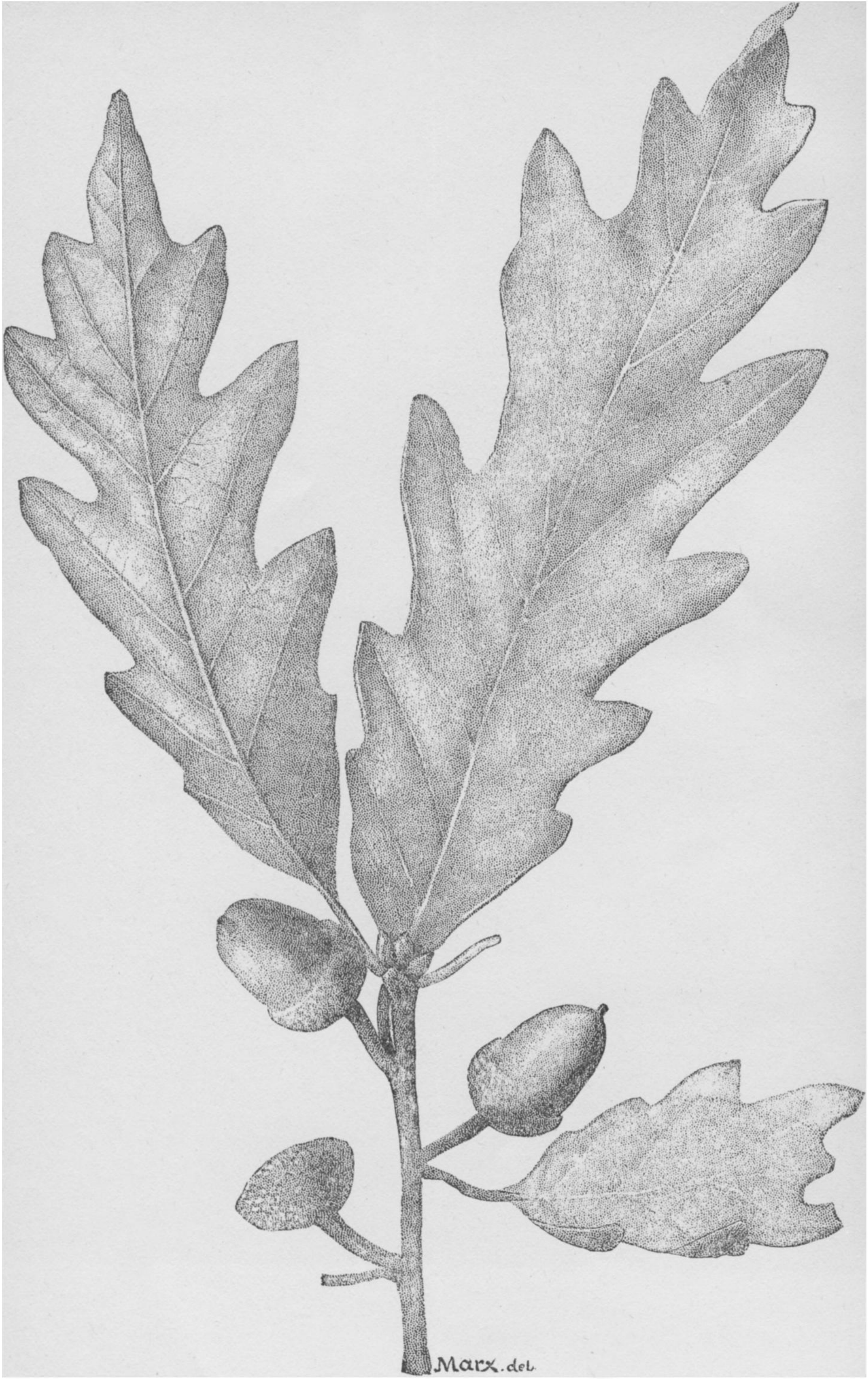
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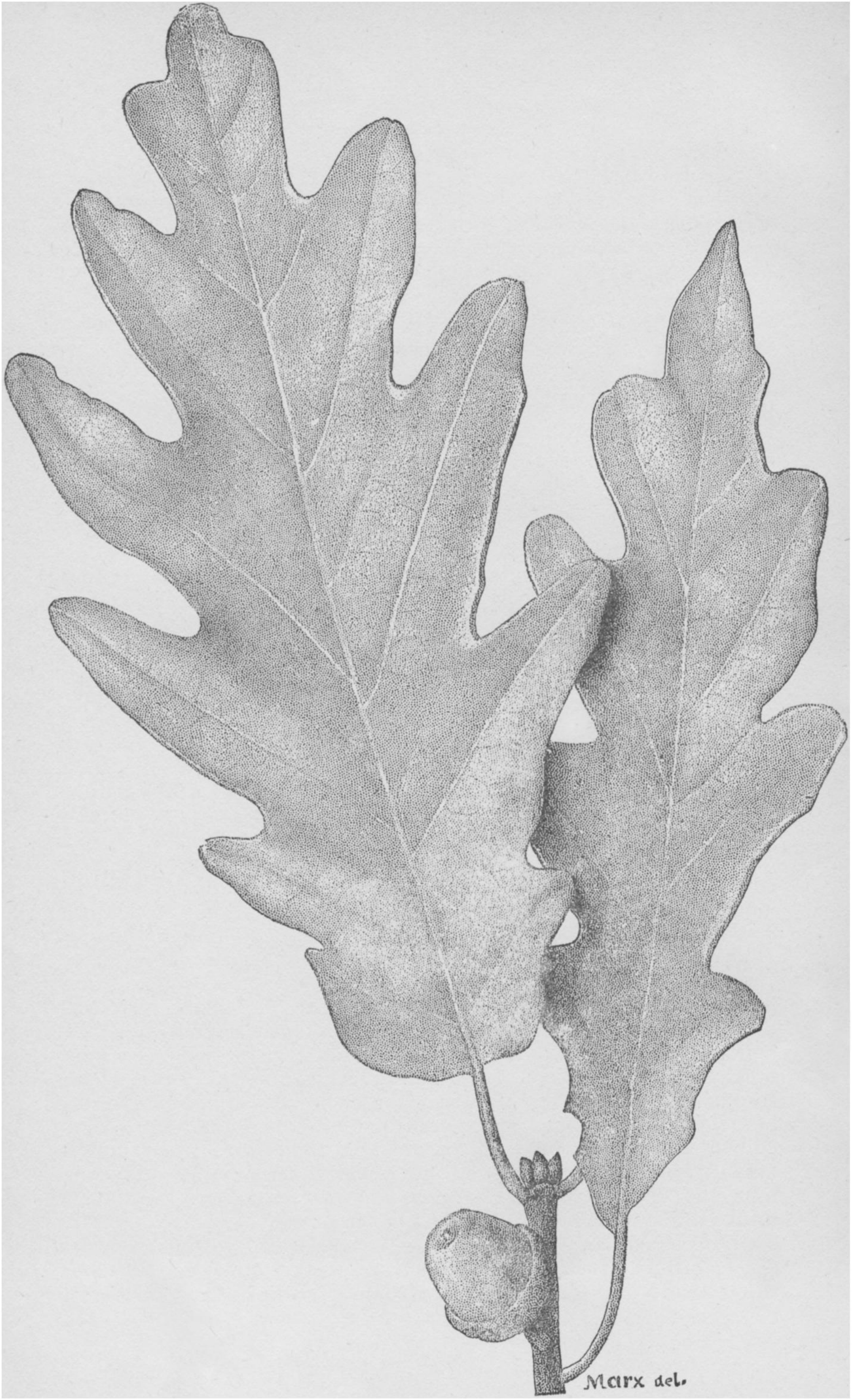
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